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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ZHOU, TING

ART UNIT PAPER NUMBER

2173

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/022,151		NIE ET AL.	
	Examiner		Art Unit	
	Ting Zhou		2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-16, 18-35, 37-59 and 61-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-16, 18-35, 37-59 and 61-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 28 November 2005 have been received and entered. The applicant has added new claims 61-64. Claims 1-8, 10-16, 18-35, 37-59 and 61-64 are as amended are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10-16, 20-35, 39-47, 50-59 and 63-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter "Gill") and Lanier et al. U.S. Patent 5,588,104 (hereinafter "Lanier").

Referring to claims 1, 30 and 42, Gill teaches a method, system and machine readable medium having instructions comprising processing a request to create a scene, wherein the scene is to be able to be translated and rotated (using a multi-media authoring tool extension to create a multimedia presentation, the media object of the presentation being able to be translated and rotated via capabilities of zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 10-45, column 6, lines 49-50 and column 7, lines 1-62), processing a request to add at least two media objects to the scene (combining a plurality of media objects of multiple diverse types into an integrated presentation) (Gill: column 3, lines 10-15 and 56-62), preparing a translation vector

and a rotation matrix for each of the media objects to define an orientation and a location of each of the media objects in the scene (regulating the spatial relationship between the objects within the presentation by coordinating and managing the inputting of data into the plurality of partitions on the presentation; each object placed on the presentation has both a position and extent on the page; the user can further define the orientation and location of the imported objects by zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 21-45, column 6, lines 49-50 and column 7, lines 33-48) and displaying the scene (viewing the multimedia presentation) (Gill: column 14, lines 18-19 and column 18, lines 17-26). This is further shown in Figure 2 where a plurality of media objects are placed at certain locations on the presentation. However, Gill fails to explicitly teach the created scene is a virtual reality scene, and the processing including associating each media object with a series of views of the object from various orientations and locations in three-dimensional space. Lanier teaches the creation and manipulation of objects on a computer screen (Lanier: column 1, lines 36-45) similar to that of Gill. In addition, Lanier further teaches creating a virtual reality scene (creating a virtual reality world), and associating each object with a series of views of the object from various orientations and locations in three-dimensional space (the virtual objects in the virtual world can be viewed from a plurality of angles or distances in the three-dimensional world) (Lanier: column 1, lines 10-14, 36-45 and column 2, line 36-column 3, line 5). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill and Lanier before him at the time the invention was made, to modify the method for creating a scene from a plurality of media objects of Gill to include the creation of a virtual reality scene in three-dimensional space taught by

Lanier. One would have been motivated to make such a combination in order to provide rapid access and intuitive views of numerous data having a complex structure.

Referring to claims 23 and 53, Gill teaches a method and machine readable medium having instructions comprising providing a first function to allow an application program to create a scene, wherein the scene is to be able to be translated and rotated (using a multi-media authoring tool extension to create a multimedia presentation, the media object of the presentation being able to be translated and rotated via capabilities of zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 10-45, column 6, lines 49-50 and column 7, lines 1-62), providing a second function to allow the application program to add at least two media objects to the scene (combining a plurality of media objects of multiple diverse types into an integrated presentation) (Gill: column 3, lines 10-15 and 56-62), and preparing a translation vector and a rotation matrix for each of the media objects to define an orientation and a location of each of the media objects in the scene upon receipt of a request to execute the second function (regulating the spatial relationship between the objects within the presentation by coordinating and managing the inputting of data into the plurality of partitions on the presentation; each object placed on the presentation has both a position and extent on the page; the user can further define the orientation and location of the imported objects by zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 21-45, column 7, lines 33-48 and column 6, lines 49-50). This is further shown in Figure 2 where a plurality of media objects are placed at certain locations on the presentation. However, Gill fails to explicitly teach the created scene is a virtual reality scene, and the processing including associating each media object with a series of views of the object from various orientations and locations in three-dimensional space. Lanier teaches the creation and

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manipulation of objects on a computer screen (Lanier: column 1, lines 36-45) similar to that of Gill. In addition, Lanier further teaches creating a virtual reality scene (creating a virtual reality world), and associating each object with a series of views of the object from various orientations and locations in three-dimensional space (the virtual objects in the virtual world can be viewed from a plurality of angles or distances in the three-dimensional world) (Lanier: column 1, lines 10-14, 36-45 and column 2, line 36-column 3, line 5). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill and Lanier before him at the time the invention was made, to modify the method for creating a scene from a plurality of media objects of Gill to include the creation of a virtual reality scene in three-dimensional space taught by Lanier. One would have been motivated to make such a combination in order to provide rapid access and intuitive view of numerous data having a complex structure.

Referring to claims 24 and 54, Gill, as modified, teach providing a third function to display the scene and the media objects in the scene and displaying the scene responsive to receiving a request to execute the third function (user activation of the presentation mode to the view multimedia presentation) (Gill: column 14, lines 18-19, column 18, lines 17-26 and Figure 5).

Referring to claims 2, 25, 31, 43 and 55, Gill, as modified, teach receiving a request to manipulate the scene (allowing the user to edit, manage and manipulate the objects on the multimedia presentation) (Gill: column 3, lines 37-44, column 4, lines 35-44 and column 10, lines 64-67).

Referring to claims 3, 26, 32, 44 and 56, Gill, as modified, teach updating the translation vector and rotation matrix for each of the media objects responsive to receiving the request to

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manipulate the scene (as each one of the plurality of media objects are added to the presentation, the presentation is updated to regulate the spatial relationships among the plurality of objects and reflect the new addition) (Gill: column 3, lines 21-44).

Referring to claim 4, Gill, as modified, teach the request to manipulate is received from an application program (using the authoring tool to manage and manipulate the presentation) (Gill: column 10, lines 64-67 and column 13, lines 63-67).

Referring to claim 5, Gill, as modified, teach the request to manipulate originates from the user (the user is using the authoring tool to manage and manipulate the presentation) (Gill: column 5, lines 36-44 and column 6, lines 57-59).

Referring to claims 6, 27, 33, 45 and 57, Gill, as modified, teach the request to manipulate is one of a pan request, a zoom request, and a tilt request (allowing the user to perform operations on the objects within the presentation such as zoom, rotate, etc.) (Gill: column 6, lines 49-63).

Referring to claims 7, 28, 34, 46 and 58, Gill, as modified, teach calling one or more library functions of a plurality of library functions to manipulate the media objects (using one of the tools, or functions of the authoring tool, such as zoom, rotate, resize, etc. to manipulate the objects; for example, creating a button object using the function of the button library pixel editor) (Gill: column 6, lines 49-63 and column 11, lines 44-47).

Referring to claims 8, 29, 35, 47 and 59, Gill, as modified, teach the library functions are included in an operating system enhancement application program interface (the functions used to manipulate the objects are part of the authoring tool) (Gill: column 10, lines 64-67 and continuing onto column 11, lines 1-47).

Referring to claim 10, Gill et al. teach receiving a selection of a first media object of the media objects within the scene (selecting the media objects to rotate, resize, zoom, etc.) (column 6, lines 49-63 and column 11, lines 4-6).

Referring to claim 11, Gill, as modified, teach receiving a request to manipulate the first media object (allowing the user to edit, manage and manipulate the objects on the multimedia presentation) (Gill: column 3, lines 37-44, column 4, lines 35-44 and column 10, lines 64-67).

Referring to claim 12, Gill, as modified, teach updating the translation vector and rotation matrix for each of the media objects responsive to receiving the request to manipulate the first media object (as each one of the plurality of media objects are added to the presentation, the presentation is updated to regulate the spatial relationships among the plurality of objects and reflect the new addition; furthermore, the user can define the position and extent of each object on the presentation) (Gill: column 3, lines 21-44 and column 7, lines 33-37).

Referring to claim 13, Gill, as modified, teach the request to manipulate originates from the user (the user is using the authoring tool to manage and manipulate the presentation) (Gill: column 5, lines 36-44 and column 6, lines 57-59).

Referring to claim 14, Gill, as modified, teach the request to manipulate is one of a pan request, a zoom request, and a tilt request (allowing the user to perform operations on the objects within the presentation such as zoom, rotate, etc.) (Gill: column 6, lines 49-63).

Referring to claim 15, Gill, as modified, teach calling one or more library functions of a plurality of library functions to manipulate the media objects (using one of the tools, or functions of the authoring tool, such as zoom, rotate, resize, etc. to manipulate the objects; for example,

creating a button object using the function of the button library pixel editor) (Gill: column 6, lines 49-63 and column 11, lines 44-47).

Referring to claim 16, Gill, as modified, teach the library functions are included in a well-known operating system enhancement application program interface (the functions used to manipulate the objects are part of the authoring tool) (Gill: column 10, lines 64-67 and continuing onto column 11, lines 1-47).

Referring to claims 20, 39 and 50, Gill, as modified, teach receiving a designation of a soundtrack to be played in conjunction with displaying the scene (including audio, or sound objects such as part of a movie, in the multimedia presentation) (Gill: column 1, lines 25-27, column 3, lines 56-65 and column 10, lines 11-21).

Referring to claims 21, 40 and 51, Gill, as modified, teach the soundtrack is to be played by calling one or more library functions of a plurality of library functions (the functions of the authoring tool includes merging objects including movies, audio, etc.) (Gill: column 3, lines 56-65).

Referring to claims 22, 41 and 52, Gill, as modified, teach calling one or more library functions of a plurality of library functions to display the media objects (the authoring tool includes functions allowing it to integrate and display media objects) (Gill: column 3, lines 56-65, column 4, lines 35-44 and Figures 2-3).

Referring to claim 63, Gill, as modified, teach wherein the series of views is determined algorithmically when the media object is added to the virtual reality scene (defining an object via the x, y, z positions of points of the object) (column 2, lines 36-62).

Referring to claim 64, Gill, as modified, teach wherein in response to a request to navigate within the virtual reality scene, replacing a displayed view of the media object in the scene with a different view in the series of views based on the translation vector and rotation matrix to reorient and relocate the object (zooming, rotating, resizing, etc. the objects) (Gill: column 3, lines 21-45, column 6, lines 49-50 and column 7, lines 33-48) to match the navigation (automatically updating the three-dimensional space to reflect user made changes to the objects, allowing users to view the displayed objects from any angle or distance) (Lanier: column 2, line 63-column 3, line 5).

3. Claims 18-19, 37-38 and 48-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter "Gill") and Lanier et al. U.S. Patent 5,588,104 (hereinafter "Lanier"), as applied to claims 1, 30 and 42 above, and further in view of Autry et al. U.S. Patent 5,724,106 (hereinafter "Autry").

Referring to claims 18, 37 and 48, Gill and Lanier teach all of the limitations as applied to claims 1, 30 and 42 above. Specifically, Gill and Lanier teach associating sounds with media objects (including audio, or sound objects such as part of a movie, in the multimedia presentation) (Gill: column 1, lines 25-27, column 3, lines 56-65 and column 10, lines 11-21). However, Gill and Lanier fail to explicitly teach playing the soundtrack associated with the media object when a user selects the media object. Autry teaches a graphical user interface for displaying and controlling media objects such as pictures (Autry: column 3, lines 40-44 and column 4, lines 9-11) similar to that of Gill and Lanier. In addition, Autry further teaches playing the soundtrack associated with the media object when the media object is selected by a

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user (playing a soundtrack when the user selects the icon by dragging and dropping the icon on a corresponding program) (Autry: column 16, lines 54-67 through column 17, lines 1-4). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill, Lanier and Autry before him at the time the invention was made, to modify the interface for creating multimedia presentations of Gill and Lanier to include playing a soundtrack in response to user selection, taught by Autry. One would have been motivated to make such a combination in order to provide users with more options and control in designating how their created presentation will look and sound.

Referring to claims 19, 38 and 49, Gill, as modified, teach wherein the soundtrack is to be played responsively to movement of the associated media object (playing a soundtrack when the user selects the icon by dragging and dropping the icon on a corresponding program) (Autry: column 16, lines 54-67 through column 17, lines 1-4).

4. Claims 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gill et al. U.S. Patent 6,081,262 (hereinafter "Gill") and Lanier et al. U.S. Patent 5,588,104 (hereinafter "Lanier"), as applied to claim 53 above, and further in view of Kopelman et al. U.S. Patent 6,664,986 (hereinafter "Kopelman").

Referring to claim 61, Gill and Lanier teaches all of the limitations as applied to claim 53 above. However, although Gill and Lanier teaches receiving video information from a camera (Gill: column 1, lines 25-48 and column 5, line 65-column 6, line 20), Gill and Lanier fail to explicitly teach wherein the series of views is captured by a camera rotated about a subject of the media object. Kopelman teaches a virtual three-dimensional display of an object (views of a

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virtual 3D dental model) (Kopelman: column 2, lines 49-67) similar to that of Gill and Lanier.

In addition, Kopelman further teaches wherein the series of views is captured by a camera rotated about a subject of the media object (cameras moving along a coordinate system surrounding a model object) (Kopelman: column 4, line 62-column 5, line 8). It would have been obvious to one of ordinary skill in the art, having the teachings of Gill, Lanier and Kopelman before him at the time the invention was made, to modify the creation of the virtual three dimensional scene from media objects of Gill and Lanier to include the views of an object captured by a camera taught by Kopelman. One would have been motivated to make such a combination in order to provide a user-friendly graphical user interface that will enable even the most in-proficient user to easily view and manipulate three-dimensional images.

Referring to claim 62, Gill, as modified, teach wherein the series of views is captured by a camera directed at a rotated subject of the media object (capturing views of the model via rotation of the model) (Kopelman: column 4, line 32-column 5, line 8).

Response to Arguments

5. Applicant's arguments with respect to claims 1-8, 10-16, 18-35, 37-59 and 61-64 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TZ

A handwritten signature in black ink, appearing to read "Kieu B. Le". The signature is written in a cursive, flowing style with a large loop at the end.